UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/817,419	03/26/2001	Yong-Cheng Shi	1908	8490

7590 04/24/2002

Laurelee A. Duncan
National Starch & Chemical Company
Box 6500
Bridgewater, NJ 08807

EXAMINER
TRAN LIEN, THUY

ART UNIT	PAPER NUMBER
1761	3

DATE MAILED: 04/24/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

AS-3

Office Action Summary

Application No.	Applicant(s)
09/817,419	Shi et al.
Examiner	**Art Unit**
Lien Tran	1761

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *Mar 26, 2001* .

2a) ☐ This action is **FINAL.** 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-21* is/are pending in the application.

4a) Of the above, claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-21* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a) ☐ All b) ☐ Some* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

15) ☒ Notice of References Cited (PTO-892)
16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____
18) ☐ Interview Summary (PTO-413) Paper No(s). _____
19) ☐ Notice of Informal Patent Application (PTO-152)
20) ☐ Other:

1. Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, what does applicant mean by the phrase " a combination of moisture and temperature conditions"? It is not clear what the phrase encompasses.

In claim 2, " the granular structure" does not have antecedent basis.

In claim 9, " the component granular starch" does not have antecedent basis.

In claim 13, it is suggested applicant changes " comprising" to having because the onset temperature is not an actual component in the grain.

Claim 14 has the same problem as claim 13.

In claim 16, " the component starch" does not have antecedent basis.

Claims 17-18 have the same problem as claim 16.

Claim 20 is vague and indefinite because claim 11 is not a method claim. Thus, what does applicant mean by " prepared by the method of claim 11"?

Claim 21 is vague and indefinite; does the food product contain cereal, bread, crackers as ingredients or the food product is cereal, bread, crackers etc... Also, does applicant intend for a Markush group; if so, the proper language is " selected from the group consisting of".

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1,2,4,5,8,10,11-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Whitney et al.

Whitney et al disclose a process for cooking cereal grains. The process comprises the step of heating grains which have been hydrated to have a moisture content of from about 28-36%. The heating is done in water at a temperature of from about 95-100 degree C. The grain may be selected from the group consisting of rice, oat, barley, maize and rye. (See columns 2-3)

The Whitney et al process is the same as the claimed process. The moisture content and the heating temperature are within the ranges claimed. The properties as claimed are inherent in the Whitney et al grain because the grain is subjected to the same treatment as claimed.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 3,6-7,9 and 16-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Whitney et al in view of Fergason et al.

The teaching of Whitney et al is described above. Whitney et al do not disclose a grain having an amylose extender genotype as claimed, isolating the starch from the grain and the food product as claimed.

Fergason et al disclose a plant having recessive amylose extender genotype in which the starch comprises at least 75% amylose. The starch is extracted from the plant and the amylose content is measured by butanol fractionation/ exclusion chromatography measurement. (See column 3)

It would have been obvious to select any known grain as the starting grain material in the Whitney et al process because they do not limit the process to a specific grain and disclose that a variety of grain can be used in the method. The selection of the type of grain would have been an obvious matter of choice. Grain having amylose characteristics as claimed is known as shown by Fergason et al. It would also have been obvious to isolate the starch from the grain when pure starch is desired. Such method is well known in the art and is also taught by Fergason et al. It would also have been obvious to use the grain in various food products. This is well known and conventional in the art.

7. The IDS submitted by applicant on Sept. 4, 2001 can not be considered because applicant did not submit copies of the reference along with the IDS.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Malvido et al disclose high temperature/short time process for the production of lime cooked corn.

Huster et al disclose method of producing starch from grain.

Fox discloses a method for processing multiple whole grain mixtures.

Shi et al a process for producing amylase resistant granular starch.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lien Tran whose telephone number is (703) 308-1868. The examiner can normally be reached on Wed-Fri . The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9310.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

April 18, 2002

Lien Tran

LIEN TRAN
PRIMARY EXAMINER
Group 1700